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10/054,038	11/12/2001	Sunao Takatori	2222.6080000	1387

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EXAMINER	
HALIYUR, VENKATESH N	

ART UNIT	PAPER NUMBER
2476	

MAIL DATE	DELIVERY MODE
10/12/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/054,038	TAKATORI ET AL.	
	Examiner	Art Unit	
	VENKATESH HALIYUR	2476	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08/31/2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23 (2-3,5-6,11,17,19 are canceled)* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4,7-10,12-16,18 and 20-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 November 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed on 08/31/2010 has been fully considered. However the amendments necessitated a new ground(s) of rejection. Rejections follow.

2. Claims 1-23 are pending in the application. Claims 2-3, 5-6, 11, 17, 19 are canceled.

3. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08/31/2010 has been entered.

Claim Objections

4. Claims 1, 7, 12, 16 are objected to because of the following informalities: These claims recite the limitations in alternative form with the multiple use of the word “or” in lines 13, 15, 20 of claim 1 and lines 15, 17, 22 of claims 7 and lines 15, 22 of claim 12

makes the following limitations of the claims optional. Also in these claims it is not positively recited whether a receiver and the destination communication device is to be considered the same device; Therefore appropriate corrections are required to these claims.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1,4,7-9,12-13,15-16,18,20-23 are rejected under 35 U.S.C.103(a) as being unpatentable over Alfano et al [US Pat: 6,094,423] further in view of Bergins et al [US Pat: 4,691,314].

Regarding claims 1, and 4, Alfano et al in the invention of “Wireless Protocol Method and Apparatus Supporting Transaction Requests with Variable Length Responses” disclosed a wireless communications device **(Fig 6)** comprising:

a transmitter **(XMTR, item 51 of Fig 6)** configured to transmit a query to a destination communication device, the query being about packet sizes that are recognizable by the destination communication device **(server, col 5, lines 45-55)**.

a receiver **(RCVR, item 54 of Fig 6)** to receive a response to the query from the destination communication device **(server)**, the response indicating the packet sizes that are recognizable by the destination communication device **(col 5, lines 56-67, col 3, lines 25-27)**.

a determining device **(processor, item 58 of Fig 6)** configured to select an appropriate packet size **(MTU, Maximum transfer unit size)** for transmission data to be packetized **(col 5, lines 45-67, col 6, lines 1-16)**, the appropriate packet size being selected according to the response indicating the packet sizes that are recognizable by the destination communication device or **(server response indicates the packet size, col 5, lines 5-17, col 6, lines 17-23)** and a packet generator **(processor)** configured to packetize the transmission data based on the appropriate packet size determined by said determining device **(processor segments packets if packet size exceeds MTU, col 6, lines 24-54, Fig 7)** and a storage device **(RAM, item 66 of Fig 6)** configured to store information with respect to the packet sizes that are recognizable by the destination communication device **(col 5, lines 62-67, col 6, lines 1-4).** Alfano disclosed the feature of a determining device configured to select a most appropriate packet size for transmission data to be packetized but fails to disclose the method wherein a receiver configured to receive a response to the query from the destination communication device and wherein the appropriate packet size is smaller than the packet sizes that are recognizable by the destination communication device and a retransmission request that occurs in response to detecting a communication error or traffic congestion on a communication link established between the transmitting and

receiving communications devices and the destination communication device, the retransmission request occurring while packets are being transmitted and the appropriate packet size being selected according to data communication rates for packets previously transmitted to the destination communication device. However, Bergins et al disclosed the method wherein a receiver configured to receive a response to the query from the destination communication device and wherein the appropriate packet size is smaller than the packet sizes that are recognizable by the destination communication device **(negotiating the packet size with the receiver for lowest packet size)** and a retransmission request that occurs in response to detecting a communication error or traffic congestion on a communication link established between the transmitting and receiving communications devices and the destination communication device, the retransmission request occurring while packets are being transmitted and the appropriate packet size **(adaptive packet size)** being selected according to data communication rates for packets previously transmitted to the destination communication device **(col 6, lines 21-67, col 6, lines 1-30, col 7, lines 1-10, Figs 3A/B).** Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention was made to use the Bergins et al disclosed the method wherein a receiver configured to receive a response to the query from the destination communication device and wherein the appropriate packet size is smaller than the packet sizes that are recognizable by the destination communication device and a retransmission request that occurs in response to detecting a communication error or traffic congestion on a communication link established between the transmitting and

receiving communications devices and the destination communication device, the retransmission request occurring while packets are being transmitted and the appropriate packet size being selected according to data communication rates for packets previously transmitted to the destination communication device as taught by Bergins et al in the system of Alfano et al to include the feature wherein a retransmission request that occurs in response to detecting a communication error or traffic congestion between the wireless communications device and the destination communication device, a receiver configured to receive a response to the query from the destination communication device and wherein the appropriate packet size is smaller than the packet sizes that are recognizable by the destination communication device and a retransmission request that occurs in response to detecting a communication error or traffic congestion on a wireless communication link established between the transmitting and receiving communications devices and the destination communication device, the retransmission request occurring while packets are being transmitted and the appropriate packet size being selected according to data communication rates for packets previously transmitted to the destination communication device. One is motivated in order to provide a mechanism for the receiving side to request transmitting side to transmit data packet sizes to achieve an optimal transmission rate for error, delay and congestion control in the wireless communication system.

Regarding claims 7, and 9, Alfano et al disclosed a method for determining packet sizes for transmission data to be packetized and transmitted from a

communication terminal device **(communication device, item 50, Fig 6)** to a destination communication device **(server),** the method comprising:

transmitting **(XMTR, item 51 of Fig 6)** a query to the destination communication device, the query being about packet sizes that are recognizable by the destination communication device **(server, col 5, lines 45-63).**

receiving **(RCVR, item 54 of Fig 6)** a response to the query from the destination communication device **(server),** the response indicating the packet sizes that are recognizable by the destination communication device **(col 5, lines 56-67, col 6, lines 1-16, col 3, lines 25-27)**.

selecting an appropriate packet size for transmission data to be packetized, the appropriate packet size being selected according to **(server response indicates the packet size, col 6, lines 17-23)** and packetizing said transmission data according to the packet size selected **(processor segments packets if packet size exceeds MTU, col 6, lines 24-54)** and a packet generator **(processor)** configured to packetize the transmission data based on the appropriate packet size determined by said determining device **(processor segments packets if packet size exceeds MTU, col 6, lines 24-54, Fig 7)** and a storage device **(RAM, item 66 of Fig 6)** configured to store information with respect to the packet sizes that are recognizable by the destination communication device **(col 5, lines 62-67, col 6, lines 1-4).**

Regarding claims 8 and 13 Alfano et al disclosed transmitting said packetized transmission data from said communication terminal device to said destination communication device **(col 5, lines 45-51).**

Regarding claims 12, and 15, Alfano et al disclosed An article of manufacture including a non-transitory computer-readable medium encoded with instructions **(items 11 and 14, Fig 1),** execution of which by a computing device cause the computing device to perform operations comprising:

transmitting **(XMTR, item 51 of Fig 6)** a query to the destination communication device, the query directed to packet sizes that are recognizable by the destination communication device **(server, col 5, lines 45-55)**.

receiving **(RCVR, item 54 of Fig 6)** a response to the query from the destination communication device **(server),** the response indicating the packet sizes that are recognizable by the destination communication device **(col 5, lines 56-67, col 3, lines 25-27)**.

selecting an appropriate packet size for transmission data to be packetized, the appropriate packet size being selected according to the received information corresponding to the packet sizes that are recognizable by the destination device **(server response indicates the packet size, col 6, lines 17-23)** and instructions for packetizing said transmission data according to the packet size selected **(processor segments packets if packet size exceeds MTU, col 6, lines 24-54)** and a packet generator **(processor)** configured to packetize the transmission data based on the appropriate packet size determined by said determining device **(processor segments packets if packet size exceeds MTU, col 6, lines 24-54, Fig 7)** and a storage device **(RAM, item 66 of Fig 6)** configured to store information with respect to the packet sizes that are recognizable by the destination communication device **(col 5, lines 62-67, col**

6, lines 1-4). Alfano disclosed the feature of a determining device configured to select a most appropriate packet size for transmission data to be packetized but fails to disclose the method wherein a receiver configured to receive a response to the query from the destination communication device and wherein the appropriate packet size is smaller than the packet sizes that are recognizable by the destination communication device and a retransmission request that occurs in response to detecting a communication error or traffic congestion on a communication link established between the transmitting and receiving communications devices and the destination communication device, the retransmission request occurring while packets are being transmitted and the appropriate packet size being selected according to data communication rates for packets previously transmitted to the destination communication device. However, Bergins et al disclosed the method wherein a receiver configured to receive a response to the query from the destination communication device and wherein the appropriate packet size is smaller than the packet sizes that are recognizable by the destination communication device **(negotiating the packet size with the receiver for lowest packet size)** and a retransmission request that occurs in response to detecting a communication error or traffic congestion on a communication link established between the transmitting and receiving communications devices and the destination communication device, the retransmission request occurring while packets are being transmitted and the appropriate packet size **(adaptive packet size)** being selected according to data communication rates for packets previously transmitted to the destination communication device **(col 6, lines 21-67, col 6, lines 1-**

30, col 7, lines 1-10, Figs 3A/B). Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention was made to use the Bergins et al disclosed the method wherein a receiver configured to receive a response to the query from the destination communication device and wherein the appropriate packet size is smaller than the packet sizes that are recognizable by the destination communication device and a retransmission request that occurs in response to detecting a communication error or traffic congestion on a communication link established between the transmitting and receiving communications devices and the destination communication device, the retransmission request occurring while packets are being transmitted and the appropriate packet size being selected according to data communication rates for packets previously transmitted to the destination communication device as taught by Bergins et al in the system of Alfano et al to include the feature wherein a retransmission request that occurs in response to detecting a communication error or traffic congestion between the wireless communications device and the destination communication device, a receiver configured to receive a response to the query from the destination communication device and wherein the appropriate packet size is smaller than the packet sizes that are recognizable by the destination communication device and a retransmission request that occurs in response to detecting a communication error or traffic congestion on a wireless communication link established between the transmitting and receiving communications devices and the destination communication device, the retransmission request occurring while packets are being transmitted and the appropriate packet size being selected according to data

communication rates for packets previously transmitted to the destination communication device. One is motivated in order to provide a mechanism for the receiving side to request transmitting side to transmit data packet sizes to achieve an optimal transmission rate for error, delay and congestion control in the wireless communication system.

Regarding claims 16, and 18, Alfano et al disclosed a communication terminal device **(communication device, item 50, Fig 6)** configured to determine packet sizes for transmission data to be packetized and transmitted to a destination communication device **(server)**, the communication terminal device **(Figs 6/7)** comprising:

A transmitter configured to transmit **(XMTR, item 51 of Fig 6)** a query to the destination communication device, the query being about packet sizes that are recognizable by the destination communication device **(server, col 5, lines 45-55)**.

means for receiving **(RCVR, item 54 of Fig 6)** a response to the query from the destination communication device **(server),** the response indicating the packet sizes that are recognizable by the destination communication device **(col 5, lines 56-67, col 3, lines 25-27)**.

means for selecting an appropriate packet size for transmission data to be packetized transmission data, the appropriate packet size being selected according to and means for packetizing the transmission data based on the appropriate packet size determined by said determining device **(processor segments packets if packet size exceeds MTU, col 6, lines 24-54, Fig 7)** and a storage device **(RAM, item 66 of Fig 6)** configured to store information with respect to the packet sizes that are recognizable by

the destination communication device **(col 5, lines 62-67, col 6, lines 1-4** Alfano disclosed the feature of a determining device configured to select a most appropriate packet size for transmission data to be packetized but fails to disclose the method wherein a receiver configured to receive a response to the query from the destination communication device and wherein the appropriate packet size is smaller than the packet sizes that are recognizable by the destination communication device and a retransmission request that occurs in response to detecting a communication error or traffic congestion on a communication link established between the transmitting and receiving communications devices and the destination communication device, the retransmission request occurring while packets are being transmitted and the appropriate packet size being selected according to data communication rates for packets previously transmitted to the destination communication device. However, Bergins et al disclosed the method wherein a receiver configured to receive a response to the query from the destination communication device and wherein the appropriate packet size is smaller than the packet sizes that are recognizable by the destination communication device **(negotiating the packet size with the receiver for lowest packet size)** and a retransmission request that occurs in response to detecting a communication error or traffic congestion on a communication link established between the transmitting and receiving communications devices and the destination communication device, the retransmission request occurring while packets are being transmitted and the appropriate packet size **(adaptive packet size)** being selected according to data communication rates for packets previously transmitted to the

destination communication device **(col 6, lines 21-67, col 7, lines 1-10, Figs 3A/B).** Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention was made to use the Bergins et al disclosed the method wherein a receiver configured to receive a response to the query from the destination communication device and wherein the appropriate packet size is smaller than the packet sizes that are recognizable by the destination communication device and a retransmission request that occurs in response to detecting a communication error or traffic congestion on a communication link established between the transmitting and receiving communications devices and the destination communication device, the retransmission request occurring while packets are being transmitted and the appropriate packet size being selected according to data communication rates for packets previously transmitted to the destination communication device as taught by Bergins et al in the system of Alfano et al to include the feature wherein a retransmission request that occurs in response to detecting a communication error or traffic congestion between the wireless communications device and the destination communication device, a receiver configured to receive a response to the query from the destination communication device and wherein the appropriate packet size is smaller than the packet sizes that are recognizable by the destination communication device and a retransmission request that occurs in response to detecting a communication error or traffic congestion on a wireless communication link established between the transmitting and receiving communications devices and the destination communication device, the retransmission request occurring while packets are being

transmitted and the appropriate packet size being selected according to data communication rates for packets previously transmitted to the destination communication device. One is motivated in order to provide a mechanism for the receiving side to request transmitting side to transmit data packet sizes to achieve an optimal transmission rate for error, delay and congestion control in the wireless communication system.

Regarding claims 20-23, wherein the determining device is configured to perform the selecting of the appropriate packet size according to one or more of a status of transmission data received by the wireless communication device or current traffic congestion of a communication link that the transmission data is to be transmitted over **(col 6, lines 24-36).**

7. Claims 10, 14 are rejected under 35 U.S.C.103 (a) as being unpatentable over Alfano et al [US Pat: 6,094,423] and Bergins et al [US Pat: 4,691,314] further in view of Roobal et al [US Pat: 6,307,867].

Regarding claims 10, 14, Alfano disclosed packetizing and retransmitting packets after the transmitting to the receiver **(col 5, lines 45-67, col 6, lines 1-16)** and Bergins disclosed repacketizing different packet size and retransmitting to the receiver **(col 6, lines 21-67, col 6, lines 1-30, col 7, lines 1-10, Figs 3A/B)** but Alfano and Bergins fail to positively disclose the feature of generating the retransmission request requesting a different packet size to the destination communication device. However, Roobal et al

disclosed a method of receiving, after the transmitting a retransmission request requesting a different packet size **(col 1, lines 34-49, col 7, lines 26-59, Figs 4, 10).**

Therefore it would have been obvious for one of the ordinary skill in the art at the time the invention was made to use the method of receiving, after the transmitting a retransmission request requesting a different packet size as taught by Roobal et al in the system of Alfano et al as modified by Bergins to include the feature of receiving, after the transmitting a retransmission request requesting a different packet size. One is motivated in order to provide a mechanism for the receiving side to request transmitting side to transmit data packet sizes to achieve an optimal transmission rate for error, delay and congestion control.

Response to Arguments

8. Applicant's argument, see remarks filed on 08/31/2010 with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Any inquiry concerning this communication or earlier communications should be directed to the attention to Venkatesh Haliyur whose phone number is 571-272-8616. The examiner can normally be reached on Monday-Friday from 9:00AM to 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ayaz Sheikh can be reached @ (571)-272-3579. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (571)-272-2600 or fax to 571-273-8300.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll-free).

/Venkatesh Haliyur/

Examiner, Art Unit 2476

/Ayaz R. Sheikh/

Supervisory Patent Examiner, Art Unit 2476